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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,919

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EXAMINER

RUTHKOSKY, MARK

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

12/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/823,919	Applicant(s) MIYAHISA ET AL.	
	Examiner Mark Ruthkosky	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5-12 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 3,5-12 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

The response submitted 9/23/2008 has been entered into the application file and considered.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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Claims 3, 5-12 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by, OR in the alternative being unpatentable under 35 U.S.C. 103(a) over Umiya et al. (JP 62-136,759).

The instant claims are to a battery comprising an electrode group formed from battery electrode plates of a positive electrode and a negative electrode spirally wound with a separator interposed there between; a battery case for housing said electrode group; and at least one of the battery electrode plates being manufactured by a method. MPEP 2113 states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." The method steps or characteristics of intermediates are not given patentable weight. The structure of the product is the only feature given patentable weight.

The Umiya reference teaches a battery comprising an electrode group formed from battery electrode plates of a positive electrode and a negative electrode alternately laminated with a separator interposed there between (abstract and figures 1-5.) Figures 2-3 show at least one of the batter electrodes. The electrode includes a portion with active material and a portion without active material. The portions are compressed to have the same thickness across the length (as described in the section referring to Figure 2B.) A lead is welded/connected to the electrode. The positive and negative electrodes include these elements. The battery further comprises an electrode group formed from battery electrode plates of a positive electrode and a negative electrode spirally wound with a separator interposed there between; and a prismatic

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battery case for housing said electrode group (figure 4 and the corresponding text.) Figure 4 discloses a prismatic shaped battery having positive and negative plates with a separator in between and a prismatic casing including positive and negative connections. The reference teaches that the exposed portion is linear and compressed to a uniform thickness. Since the electrode is compressed to a desired thickness, there will be no deviation and substantially true straight boundaries. As the exposed portion has no active material, it would have less than 4% active material. Since the electrode has the same structure across the plate, it would inherently have a substantially equal strength at the exposed portion. Thus, the claims are anticipated.

With regard to claims 5, 7, and 8, the apparatus used to manufacture the product is not given patentable weight. With regard to claims 6 and 9, the pressed portions are relative to one another in the process and the relationship is not given patentable weight. With regard to claim 10, the step impregnating the entire core substrate before work pressing is not given patentable weight. As the active material is filled into the substrate in a manner equivalent to the instant application and pressed, the impregnation density will be equivalent.

As the claims include a different method than the prior art, the claims are further rejected under 35 U.S.C. 103(a) (see MPEP 2112, form paragraph 7.27(d).) The prior art does not teach the same method of making the electrode as claimed, however the claims are to a product. MPEP 2113 states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

Claims 3, 5-12 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umiya et al. (JP 62-136,759).

The teachings of Umiya have been presented. The reference teaches that the electrode is compressed to a desired thickness equal in the coated and uncoated regions, but is silent to a deviation of such a substantially true straight boundary. It would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare a true straight boundary because the electrodes are combined with an opposing electrode through an electrolyte filled separator to form a battery. A straight boundary will increase contact between adjacent electrodes and separator portions to allow for uniform contact between the electrolyte/separator and the electrodes to give improved capacity because no unused space will form between uniform electrodes. The artesian would have found the claimed invention to be obvious in light of the teachings of the references.

Response to Arguments

Applicant's arguments filed 1/24/2008 have been fully considered but they are not persuasive.

Applicants argue that the Umiya reference does not disclose a product having each and every feature of the present invention and that the reference would not be enabled to produce the product. Applicants further argue that the present method differs than that of the method taught in Umiya. These arguments are not persuasive. The methods of forming the inventions are not

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given patentable weight. Applicants have not presented evidence that the invention of Umiya is different or unobvious than the claimed product.

Applicants argue that the reference is not directed to an active material including a binder. This argument is not persuasive. The active material is mixed with other materials that are impregnated into the substrate. A certified translation of the document will be obtained and provided to the applicants. The method of making the material is not given patentable weight. Applicant has not presented evidence that the invention of Umiya is different than the claimed product.

Applicant argues that, “although the Umiya reference makes statements asserting that no active material remains, these statements do not carry weight regarding substrates containing a binder.” Because the reference teaches that no active material remains, the area of the substrate is considered to have no active material. With regard to the arguments based on the deviation of a straight line and that the exposed section has no active material, Applicants have not presented evidence that the invention of Umiya is different than the claimed product.

Applicants argue that one skilled in the art would understand that, with regard to the Umiya reference, it cannot be said that there will be no deviation from truly straight boundaries. Applicants have not presented evidence that the invention of Umiya is different than the claimed product. Further, applicants use of ultrasonic vibrations to remove the material from the substrate may not produce a product that is different than the prior art. It is not evident that using ultrasonic vibrations will provide a product having a more accurate boundary than the argued methods of brushing. One skilled in the art would recognize that brushing need not be considered a process wherein a brush is randomly applied to a substrate. One skilled in the art

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would understand that various procedures include the protecting of areas that are not to be brushed and that such procedures can be applied with a great deal of accuracy. Masking and shielding are two types of procedures that will protect an area from brushing while allowing brushing to occur in an adjacent area.

Applicant argues that the prior art is not enabling for the claimed invention, but has not presented evidence that the invention of Umiya is not enabled to produce the straight edges or removed surface areas, as claimed. It would have been well within the skill of the artisan to produce a boundary having a deviation of 0.2 mm and the complete removal of an active material from a substrate. Further, the Umiya reference makes statements asserting that no active material remains.

The remaining arguments state that the product set forth in the pending claims are different than the product of the Umiya reference. These arguments are not persuasive because there is a lack of evidence on the record to support applicants' statements to the contrary. Merely defining straight for a product taught to have a straight edge would have been obvious to one skilled in the art. Further, defining a lower percentage point for a removed substance when the prior art teaches removing the material would have been obvious to one skilled in the art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

/Mark Ruthkosky/

Primary Examiner, Art Unit 1795